

1051 Chevak Bulk Fuel Upgrades (Community Tank Farm) Project  
Closeout Summary Report  
February 25, 2011

This Closeout Summary Report is filed with the federal grantor agency the Denali Commission (“Denali” or “DC”) by the grantee partner Alaska Village Electric Cooperative, Inc. (“AVEC”). The federal grant award covered by this report and this project is 01051-00 (“1051”).

This project is being closed because the project is complete and is in full operation. This report represents the project status as of December 31, 2010. All storage capacities are stated in terms of gallons of gross capacity (shell capacity). Federal funds in the amount of \$733,944 are available for de-obligation from award 1051.

**Background** - The village of Chevak is located on the Ninglikfak River, approximately 17 miles east and upriver of Hooper Bay. The village was settled on a permanent basis in the early 1950’s when “Old Chevak” closer to the coast, was abandoned due to flooding. The community incorporated in 1967 under state law as a second class city. The region being somewhat close to the sea has a maritime climate with continental influences when the Bering Sea and Ninglikfak River freeze. The current population has grown from 230 in 1950 to 922 in 2008. There are 167 occupied houses in the village as well as various school, community and other buildings.

**Activities** - AVEC acted as overall project manager on this project, but no facilities were built for AVEC under this project. AVEC developed a strategic plan to complete four major community infrastructure projects in Chevak concurrently, in order to optimally utilize heavy construction equipment (which had to be barged in) and manpower. Other than this project 1051, the three other projects were facilities built for AVEC and included: the Chevak Bulk Fuel Upgrades – AVEC Tank Farm (Denali project 1050), Chevak Wind Generation (Denali project 29E) and the new Chevak Power Plant (begun under Denali project 29B, completed under Denali project 1171). The two tank farms were designed, and had their gravel foundation pads prepared, under Denali project 29A. The two tank farm projects and the power plant were constructed essentially simultaneously, on three adjacent sites. The wind generation project was also constructed during this time, but at a site not contiguous with the other three projects.

This project, informally known as the Community bulk fuel tank farm, is located south of town on the west side of Trinity Street. Bulk fuel storage capacity was constructed for two participants/operators: Chevak Company Corporation (the local ANCSA village corporation) and Wayne Hill Store (a private company), both of which resell fuel to the community. All tanks are elevated onto a common steel deck supported by a foundation consisting of steel pilings driven through a gravel pad; they are separated by containment walls into two tank farms of 406,000 and 95,000 gallons storage capacity for the respective operators. Two dispensing stations were constructed, one for each operator. Storage capacities by participant and type are as follows:

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Participant	Type	Use	Number of Tanks	Gross Capacity Per Tank	Total Capacity
Chevak Company Corporation	Bulk	Diesel	4	50,000	200,000
		Gasoline	4	50,000	200,000
	Dispensing	Diesel	1	3,000	3,000
		Gasoline		3,000	3,000
	Total		9		406,000
Wayne Hill Store	Bulk	Diesel	1	27,000	27,000
	Bulk/Disp.		1	25,000	25,000
	Dispensing		1	4,000	4,000
	Bulk	Gasoline	1	27,000	27,000
	Dispensing		1	12,000	12,000
	Total		5		95,000
<b>Grand Totals</b>			<b>14</b>		<b>501,000</b>

The design engineer was Hattenburg Dilley and Linell LLC. The construction portion of the project was executed by low bidder STG, Inc., under a \$4,708,895 fixed price contract. Final construction documents were issued in May, 2009, and site preparation started soon thereafter. Construction was completed in late summer 2010, and the substantial completion inspection was completed in September 2010. The project was originally scheduled for completion in 2011 but was accelerated to be able to receive fuel in 2010.

**Funding, Costs and Cost Containment** – All funding was provided by a Denali Commission grant to/through AVEC. Funding and costs are as follows:

	Total Funding (Budget)	Actual Costs
DC award 01051-00	\$ 6,200,903	
Total Actual Costs		\$ 5,466,959

Total funding of \$6,200,903 exceeds total actual costs of \$5,466,959 by \$733,944. 100% of this amount, or \$733,944, is the federal portion of the excess funds, and is available for de-obligation on award 01051-00 on this project.

Design Shell Capacity: 501,000 gallons

Constructed Shell Capacity: 501,000 gallons

Constructed cost per gallon \$ 10.91 per gallon

Denali Commission benchmark cost \$ 12.82 per gallon

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The constructed cost per gallon of storage capacity is \$1.91 (about 15%) less than the Denali Commission cost containment benchmark cost per gallon for a tank farm of this size in this location.

**Project Outcomes** - The project as constructed provides bulk fuel storage facilities which are code-compliant and serve the needs of the two project participants. The new facilities replace 334,240 gallons of substandard fuel storage.

**Problems Encountered/Lessons Learned** - Constructing several major infrastructure facilities in one community over an approximately three-year timeframe yielded substantial efficiencies in the use of heavy construction equipment, labor, freight, and design resources. No major problems were encountered during the execution of this project. The measurable success of all of these projects was greatly due in part to the cooperation of the City of Chevak, Chevak Traditional Council, and members of the community. The contractor performed exceptionally well and the end product is of high quality.